Enterasys RoamAbout Wireless

Management Module Guide

Document 5005

APRISMA SPECTRUM® POWERED SOLUTIONS

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Preface

Welcome to the user guide for SPECTRUM's Enterasys RoamAbout Wireless (SM-ENT1002) management module.

Please take a moment to read through this short preface, which explains how the information in this guide is organized and presented and lets you know how to access information about other SPECTRUM products.

In this section:

Intended Audience

How to Use This Guide

Text Conventions [Page 6]

Document Feedback [Page 6]

Online Documents [Page 6]

Required Reading [Page 7]

Intended Audience

This guide is intended for users of SPECTRUM's RoamAbout Wireless (SM-ENT1002) management module.

How to Use This Guide

Use this document as a guide for managing the Enterasys devices described on [Page 8] with SPECTRUM management module SM-ENT1002. The guide is organized as follows:

- Overview [Page 8]
- RoamAbout AP Support [Page 11]
- RoamAbout AP Manager [Page 17]

Only information specific to SM-ENT1002 is included in this guide. For general information about device management using SPECTRUM and explanations of SPECTRUM functionality and navigation techniques, refer to the topics listed under Required Reading [Page 7].

Text Conventions

The following text conventions are used in this document:

Element	Convention Used	Example
User-supplied parameter names	*Courier and Italic* in angle brackets <>.	The user needs to type the password in place of <*password*>.
On-screen text	Courier	The following line displays: path="/audit"
User-typed text	Courier	Type the following path name: C:\ABC\lib\db
Cross-references	Underlined and hypertext-blue	See Document Feedback [Page 6].
References to SPECTRUM documents (title and number)	*Italic*	*SPECTRUM Installation Guide (0675)*
Functionality enabled by SPECTRUM Alarm Notification Manager (SANM)	SANM in brackets [].	[SANM] AGE_FIELD_ID

Document Feedback

Please send feedback regarding SPECTRUM documents to the following e-mail address:

spectrum-docs@aprisma.com

Thank you for helping us improve our documentation.

Online Documents

SPECTRUM documents are available online at:

http://www.aprisma.com/manuals

Check this site for the latest updates and additions.

Required Reading

To use this documentation effectively, you must be familiar with the information covered by the SPECTRUM documents listed below.

- *Getting Started with SPECTRUM for Operators (1763)*
- *Getting Started with SPECTRUM for Administrators (0985)*
- *How to Manage Your Network with SPECTRUM (1909)*
- *SPECTRUM Views (2517)*
- *SPECTRUM Menus (2519)*
- *SPECTRUM Icons (2518)*
- *Application View and MIBs (2560)*
- *SPECTRUM Software Release Notice (0743)*

Overview

This section introduces the SPECTRUM documentation for the RoamAbout series of wireless devices manufactured by Enterasys.

In this section:

Device Support

Firmware Information [Page 9]

SNMPv3 Support [Page 9]

Device Support

SPECTRUM management module SM-ENT1002 currently provides modeling for Enterasys RoamAbout devices such as the RoamAbout Access Point 2000 [Page 11] as well as RoamAbout R2 Wireless Access Platform devices [Page 18]. SM-ENT1002 provides access to MIB variables defined in IEEE 802.11 and other 802.11-like MIBs.

The RoamAbout R2 Access Point supports the 802.11b standard as well as the faster 802.11a standard. The R2 device's 2 PC card slots allow 802.11a and 802.11b to be supported at the same time.

Model Types

The model type used to model RoamAbout Access Point 2000 devices is **RoamAboutAP**. The model type for RoamAbout R2 Wireless Access Platform devices is **RoamAboutR2**.

Firmware Information

This management module was tested against RoamAbout AP firmware V6.00.04, RoamAbout R2 firmware V2.00.16, and IEEE 802.11 compliant devices.

SNMPv3 Support

SPECTRUM version 6.6 and the RoamAbout R2 device both support SNMPv3. By default, RoamAbout R2 devices are configured to communicate using SNMPv3. This default configuration provides only limited access to MIB II system information via SNMPv1. SPECTRUM will discover and model this device via SNMPv1, however the device model will not be able to create associated models to provide full support of the device. To resolve this, either reconfigure the R2 to allow full SNMPv1 communication or enable SPECTRUM's SNMPv3 support. To reconfigure the R2 device, refer to the Enterasys RoamAbout R2 device documentation. For more information about SPECTRUM's SNMPv3 support, see the *SPECTRUM SNMPv3 User Guide (5124)*.

Traps, Events, and Alarms

This section describes any device-specific events and alarms supported by the RoamAbout Wireless (SM-ENT1002) management module.

Trap Support

The following standard traps are supported for the both the RoamAbout AP and the RoamAbout R2.

Trap Name	OID
coldStart	0.0
warmStart	1.0
linkDown	2.0
linkUp	3.0
authenticationFailure	4.0
egpNeighborLoss	5.0

The RoamAbout Wireless management module does not currently provide device specific alarms in addition to the built-in alarm support provided by SPECTRUM.

RoamAbout AP Support

This section describes device-specific MIB views for the RoamAbout AP that are accessible from the Icon Subviews menu of the **RoamAboutAP** Device icon.

Note: See the vendor's device firmware guide for more details about device MIB support: http://www.enterasys.com/roamabout.

In This Section

RoamAbout MIB General View

RoamAbout MIB Point to Point Diagnostic View [Page 12]

RoamAbout MIB Dot 11 Current View [Page 13]

RoamAbout MIB Dot 11 Future View [Page 15]

RoamAbout MIB Loader View [Page 15]

RoamAbout MIB General View

Note: From the Icon Subviews menu for the **RoamAboutAP** Device icon, select **RoamAbout MIB > General**.

This view provides information and controls for the Access Point in the following fields and buttons.

Note: Configuration settings such as IP Address State and Bridge Model [Page 12] affect changes to device firmware. These changes require a read-write community string.

PC CardType

A read-only field that displays the type of PC card inserted in the Access Point. The possible values are `none`, `ds915`, `ds2400`, `fh2400`, `ds80211`, and `unknown`.

Note: See PC Card Type [Page 26] for the RoamAbout R2 implementation of this field.

IP Address State

Set this button to establish the state of IP Address storage, either `volatile` or `non-volatile`. A value of `non-volatile` causes the current IP address to be stored in NVRAM.

Bridge Model

Set this button to establish the current Access Point bridge mode state. The possible values are `workgroup`, `lan-to-lan`, and `lan-to-lan-hub`. LAN-to-LAN mode is the improved version used in 802.11 and which used to be called full-bridge mode.

Upline Dump Mode

Set this button to `enabled` to create a dump file on an Access Point crash.

Memory Size

A read-only field that displays the Access Point memory size in Mbytes.

Station Name

A read-write field that specifies the wireless station name sent out as part of the beacon messages. This is valid only when a DS card is inserted in the Access Point.

IP Subnet Mask

A read-write field that specifies the IP subnet mask for this Access Point.

RoamAbout MIB Point to Point Diagnostic View

Note: From the Icon Subviews menu for the **RoamAboutAP** Device icon, select **RoamAbout MIB** > **Point to Point Diagnostic**.

The point-to-point (PTP) diagnostic section of the RoamAbout MIB only applies to non IEEE DS cards. The following fields are provided.

Remote Station MAC

A read-write field that specifies the MAC address for the remote station to participate in the point-to-point diagnostic test. To initiate a search for a participating station, enter the broadcast address (`FF-FF-FF-FF-FF-FF`).

Remote Station Name

A read-only field that displays the wireless station name of the remote station participating in the point-to-point diagnostic test.

Remote Signal Level

A read-only field that displays the last remote signal level value obtained from the point-to-point diagnostic test. A value of `0` is displayed if the last sample was not valid.

Remote Noise Level

A read-only field that displays the last remote noise level value obtained from the point-to-point diagnostic test. A value of `0` is displayed if the last sample was not valid.

Interval

A read-write field that controls PTP sampling. Entering a value of `1` causes a single PTP sample to be performed.

Local Signal Level

A read-only field that displays the last local signal level value obtained from the point-to-point diagnostic test. A value of `0` displays if the last sample was not valid.

Local Noise Level

A read-only field that displays the last local noise level value obtained from the point-to-point diagnostic test. A value of `0` displays if the last sample was not valid.

RoamAbout MIB Dot 11 Current View

Note: From the Icon Subviews menu for the **RoamAboutAP** Device icon, select **RoamAbout MIB** > **Dot 11 Current**.

This view provides the following information.

Network Name

The current network name.

Station Name

The current station name of the radio interface used by client utilities.

Operational Rate

A read-only field that displays the set of data rates at which the station may transmit data.

System Scale

The current Access Point density in the Extended Service Set (ESS).

DTIM Period

A read-only field that defines the current number of beacon intervals between successive Delivery Traffic Indication Messages (DTIMs).

Fragmentation Threshold

A read-only field that displays the mandatory maximum size of the MAC Physical Data Unit (MPDU) that may be delivered to the Physical Level (PHY), in octets.

RTS Threshold

A read-only field that displays the number of octets in an MPDU, below which an RTS/CTS (request to send/clear to send) handshake will not be performed.

Multicast PM Buffering

A read-only field that shows if multicast MAC frames are currently buffered for transmission after DTIM. The possible values are `enabled` and `disabled`. The value disabled means that MAC frames are immediately placed in the output queue for transmission.

Secure Access

A read-only field having the possible values of `enabled` or `disabled`. The value enabled means that the Access Point will only associate with stations that have the same network name, whereas `disabled` means a station with the network name of `ANY` is allowed to associate.

Privacy Invoked

A read-only field having the possible values of `true` or `false`. A value of `true` indicates that the Access Point is currently using the 802.11 WEP (Wired Equivalent Privacy) mechanism for transmitting frames of type Data.

Exclude Unencrypted

Displays the current setting of the dot11 Exclude Unencrypted attribute in the Access Point, either `true` or `false`.

RoamAbout MIB Dot 11 Future View

Note: From the Icon Subviews menu for the **RoamAboutAP** Device icon, select **RoamAbout MIB** > **Dot 11 Future**.

This view provides the same field names as the RoamAbout MIB Dot 11 Current View [Page 13] but the values relate to future rather than current channel communication frequency.

RoamAbout MIB Loader View

Note: From the Icon Subviews menu for the **RoamAboutAP** Device icon, select **RoamAbout MIB** > **RoamAbout Loader**.

This view provides Access Point firmware information and download controls via the following fields and buttons.

Firmware Use Bootp

This button controls where the Access Point gets the information it needs to download new firmware. The value `true` indicates that it should use the BootP protocol to autoconfigure such parameters as its own IP address, gateway IP, subnet, TFTP server IP address, and file name. The value `false` indicates that it should use locally configured parameters stored in NVRAM.

Firmware Server IP

A read-write field specifying the IP address of the TFTP server that should be used for firmware downloads. This value will be ignored when the Firmware Use Bootp button is set to `false`.

Firmware Filename

A read-write field specifying the name of the remote file that contains the firmware to be downloaded. This value will be ignored when the Firmware Use Bootp button is set to `false`.

Firmware Status

Displays generic status codes that indicate the success or failure of the Access Point’s most recent attempt to download new firmware.

Crash Upload Use Bootp

This button controls where the Access Point gets the information it needs to upload crash dumps. The value `true` indicates that the Access Point should use the BootP protocol to autoconfigure such parameters as its own IP address, gateway IP, subnet, TFTP server IP address, and directory name. The value `false` indicates that the Access Point should use locally configured parameters stored in NVRAM.

Crash Upload Server IP

The IP address of the TFTP server that should be used for crash dump uploads. This value will be ignored when the Crash Upload Use Bootp button is set to `false`.

Crash Upload Directory

The name of the remote directory to which all crash dumps should be uploaded. This value will be ignored when the Crash Upload Use Bootp button is set to `false`.

RoamAbout AP Manager

This section describes how to set up SPECTRUM to gain access to the RoamAbout Access Point Manager software manufactured by Enterasys Networks.

RoamAbout Access Point Manager provides further configuration and management capabilities for multiple RoamAbout Access Points. You can access this optional product from the Icon Subviews menus (via the Device, Topology, Application, and Off Page Reference icons) of the RoamAboutAP model once you have followed the Setup Instructions below.

Note: This product is only available on the Windows platform. For more information see: http://www.enterasys.com/roamabout

Setup Instructions

The RoamAbout Access Point Manager should be installed according to the manufacturer's instructions on the same system that contains SpectroGRAPH.

1. Shut down SpectroGRAPH.
2. In Windows 2000, go to **Start** -> **Settings** -> **Control Panel**.
3. Double click the **System** icon.
4. Select the **Advanced** tab.
5. Click the **Environment Variables** button.
6. Add the following to the system variables:

   ```
   Variable Type: ROAMEXCPATH

   Value Type: <RoamAbout Access Point Manager install path>
   ```

7. Click **OK**.
8. Click **OK**.
9. Start SpectroGRAPH.

The **RoamAbout Access Point** option should now be available on the Icon Subviews menus accessed via the Device, Topology, Application, and Off Page Reference icons.

RoamAbout R2 Support

This section describes the device-specific views accessible from the Icon Subviews menu of the Device icon for models of RoamAbout R2 devices.

Note: See the vendor's device firmware guide for more details about RoamAbout R2 MIB support: http://www.enterasys.com/roamabout.

In This Section

Wireless Status Views

Hardware Status Views [Page 24]

NetSight Element Manager [Page 28]

Wireless Status Views

Filtering Information View

Note: From the Icon Subviews menu for the Device icon, select **Wireless Status** > **Filtering**.

This view provides information about the status of the wireless network.

Protocol-Based Filtering/VLAN Table

This table provides information about protocol-based filtering and VLAN assignment. Each row in the Protocol-Based Filtering/VLAN Table holds filtering instructions, or VLAN classification instructions, for one port/protocol pair. Each entry is indexed by ReceivePort | Type | Index.

ReceivePort | Type | Index

- The first integer identifies the receive port to which the protocol filter is to be applied. The value 0 represents "all ports."
- The second integer identifies the protocol type. The switch chip in the RoamAbout R2 can recognize nine predefined high-level protocol types, and up to three user-defined EtherTypes. (Some or all EtherType filters may be reserved for use in implementing other features.) Protocol types are as follows:

- userEtherType(1) - Packets whose Ethernet V2 EtherTypes or IEEE 802.3 LLC/SNAP EtherTypes match the user-defined EtherType etsysESwitchEtherType[etsysESwitchProtocolIndex].
- ipv4(2) - Internet Protocol version 4 carried in Ethernet V2 frames or IEEE 802.3 frames with LLC/SNAP headers. Also, ARP packets carried in Ethernet V2 frames.
- ipxEthernet(3) - IPX carried in Ethernet V2 frames.
- ipxRaw(4) - IPX carried in IEEE 802.3 frames with no LLC.
- ipxLlc(5) - IPX carried in IEEE 802.3 frames with LLC headers.
- ipxSnap(6) - IPX carried in IEEE 802.3 frames with LLC/SNAP headers.
- sna(7) - SNA carried in IEEE 802.3 frames with LLC headers.
- netBios(8) - NetBIOS carried in IEEE 802.3 frames with LLC headers.
- decnet(9) - DECnet carried in Ethernet V2 frames or in IEEE 802.3 frames with LLC/SNAP headers.
- ipv6(10) - Internet Protocol version 6 carried in Ethernet V2 frames or IEEE 802.3 frames with LLC/SNAP headers

- The third integer identifies the protocol index.

Constraint

Indicates what type of constraint the switch should apply to packets caught by the (port/protocol) filter, either `portMask` or `vlan`. A value of `portMask` will use the Allowed To Go To mask to determine where the packets may be forwarded. A value of `vlan` classifies the packets as belonging to the VLAN Vlan ID.

Note: On the RoamAbout R2 Access Point, port/protocol constraints are sometimes secondary to other kinds of access controls.

Allowed To Go To

A port mask object indicating where packets that match this row's (port/protocol) filter are allowed to go. It applies when Constraint has a value of `portMask` and this row is valid.

Vlan ID

A number identifying a VLAN to which packets that match this row's (port, protocol) filter should be assigned. It applies when Constraint has a value of `vlan` and this row is valid.

Status

This field indicates the administrative status of this entry. The following values are possible:

- `other` - This entry is currently in effect, but the conditions under which it will remain so differ from the ones described for the other enumeration values.
- `invalid` - Writing this value to the object deletes the filter or VLAN constraint. The agent may delete the SNMP table row or return an AdminStatus of 'invalid' at its discretion.
- `permanent` - This entry is currently in use and will remain so after the next reset of the bridge.
- `deleteOnReset` - This entry is currently in use and will remain so until the next reset of the bridge.

Preempted

If true, indicates that the switch has taken control of this row and its associated resources (e.g., to support 802.1x authentication).

Address Filtering Table

This list of interface entries, indexed by IFIndex**,** contains Switch Address Filter information for a given interface.

Switch Address Filter

A switch that controls address filtering. When `true`, the bridge purges the learned entries from its forwarding database, stops its learning process, and forwards only frames with destination and source addresses that have been specified via management.

Security Information View

Note: From the Icon Subviews menu for the Device icon, select **Wireless Status** > **Security**.

This view provides WEP default keys information in the upper table and the WEP Enhanced Implemented truth value and MAC Authentication Status in the lower table. Double clicking an entry in the MAC Authentication Status column opens an Enable/Disable MAC Authentication Table view for that entry.

WEP Key Defined

The state column used for determining if an encryption key is set (`true`) or not (`false`). The default value is `false`.

WEP Key Value

A WEP default secret key value.

WEP Enhanced Table

This table, indexed by IFIndex, provides the WEP Enhanced Implemented truth value as well as MAC Authentication Status. Double clicking an entry in the MAC Authentication Status column opens an Enable/Disable MAC Authentication Table view for that entry.

WEP Enhanced Implemented

This value indicates whether the AP is capable of Enhanced Wireless Equivalent Privacy (WEP), using 128-bit keys.

MAC Authentication Status

Double clicking an entry in this column opens an Enable/Disable MAC Authentication Table view for that entry. Setting MAC Authentication Status to `enabled(1)` causes the port to communicate using MAC authentication. The dot1x authentication is disabled in this case. Setting it to `disabled(2)` causes the port to either use the dot1x authentication or to be disabled completely.

RADIUS Authentication Server Table View

Note: From the Icon Subviews menu for the Device icon, select **Wireless Status** > **RADIUS**.

This view provides the Client Server Table as well as the following buttons and fields.

Enable

This button lets you enable or disable the RADIUS Client.

Retry Timeout (s)

The number of seconds to wait for a RADIUS Server to respond to a request. This parameter value is maintained across system reboots.

Retries

The number of times to resend an authentication packet if a RADIUS Server does not respond to a request. This parameter value is maintained across system reboots.

Type

This button lets you choose which method to use for authentication, either MAC address (`mac`) or Extensible Authentication Protocol over LANs (`eapol`).

Client Server Table

This table lists RADIUS authentication servers. Each entry represents a RADIUS authentication server with which the client shares a secret. This table provides the following fields. Double clicking an entry in this table opens a RADIUS Client Server view for that entry.

Index

A number uniquely identifying each row in the Client Server Table.

Address Type

The type of Internet address by which the RADIUS authentication server is reachable.

IP Address

The Internet address for the RADIUS authentication server.

Port Number

The UDP port number (0–65535) the client is using to send requests to this server. This parameter value is maintained across system reboots.

Secret Shared

This object is the secret shared between the RADIUS authentication server and RADIUS client. This parameter value is maintained across system reboots.

Secret Entered

This indicates the existence of a shared secret.

Clear Time

This value indicates the date and time since server counters were last cleared. On a write, the server counters will be cleared and the clear time will be set to the current time if the decoded object is zero.

Status

Lets users create and delete RADIUS authentication server entries on systems that support this capability.

Hardware Status Views

System Information View

Note: From the Icon Subviews menu for the Device icon, select **Hardware Status** > **System**.

This view provides the System Error Log Table and the Rate Limiting Table in addition to the following fields.

Note: Powerups, Resets, and Unsolicited Resets are all mutually exclusive.

Powerups

The number of times this device was powered up.

Resets

The number of times the device was initialized with a management command.

Unsolicited Resets

The number of times the device initialized itself after encountering a fatal error.

Number of Error Log Entries

The number of entries in the System Error Log Table. This value is initially zero. It is incremented as entries are added, up to a maximum value.

System Error Log Table

A table which describes errors encountered by the system. This table contains the following information.

Index

Uniquely identifies an entry in the System Error Log Table.

Time Stamp

The value of `sysUpTime` when the error was logged.

Reset Number

The number of resets which have occurred at the time in which the error is logged. (This is the sum of Powerups, Resets, and Unsolicited Resets.)

Information

A textual description of the error being logged.

Rate Limiting Table

This table allows rate limiting of multicast frames received on bridge ports. A typical application of this might be to limit a broadcast storm to the confines of the LAN connected by the bridge. All values in this table must be saved across a system reset and/or a power cycle.

Rate Limit Switch

By default, rate limiting will be disabled. It can be enabled by setting this to `true`.

Rate Limit per Second

The maximum number of rate-limited frames per second that the bridge will forward per second.

Component Information View

> **Note:** From the Icon Subviews menu for the Device icon, select **Hardware Status** > **Component**.

This view provides the Link Test Table as well as Radio Parameters information.

Link Test Table

This table contains objects to test the link between a requester (the entity that sends out the management request message) and a responder (the entity that responds with the appropriate management response message). An entity could be either an Access Point (AP) or a station (STA). Double clicking on an entry in this table opens a Link Test view for that entry. This table contains the following information.

Remote Station MAC

The MAC address for the remote station to participate in the Link Test. To initiate a search for a participating station, write the broadcast address (`FF-FF-FF-FF-FF-FF`) to this field.

Remote Station Name

The wireless station name of the remote station participating in the Link Test.

Trigger

Writing a 1 to this variable causes a single Link Test request message to be sent to the remote station.

Remote Contents

The exact byte-by-byte contents of the Link Test packet returned by the remote station.

Radio Parameters

This table provides configuration information for the 2 radio slots on the R2 access point. Double clicking an entry in this table opens a Radio Parameters view for that entry where you can configure the same values (with the exception of PC Card Type and PC Card Versions).

PC Card Type

The type of PC card inserted in the R2 Access Point. Possible values are `none`, `ds80211b` (an IEEE 802.11 2.4Ghz DS 11Mb card), `ds80211a` (an IEEE 802.11 2.4Ghz DS 54Mb card) and `unknown`.

PC Card Versions

Specifies both the hardware and the firmware version identifiers for the PC card.

Bridge Mode

The current Access Point bridge mode state. In workgroup mode, all communications between clients pass through the Access Point. LAN-to-LAN mode is the improved name for 802.11. LAN-to-LAN used to be called full-bridge pre-802.11. This mode is a method of connecting two wired LANs via a wireless link, also referred to as Point-to-Point mode. LAN-to-LAN-HUB mode allows the interconnection of multiple (i.e. more than two) wired LANs via wireless links, also referred to as Point-to-MultiPoint mode. When operating in multimode the Access Point can simultaneously operate in both workgroup mode and either Point-to-Point or Point-to-MultiPoint modes. This value must be saved across a system reset and/or a power cycle.

Reset Options

The following three reset options are available:

- `noReset`: No reset is performed.
- `resetRadioCardIfNecessary`: Some parameters can only be given to the card at initialization time, and if any of these are changed, a card reset will be necessary for them to go into place. The card will be reset at this time if any of those parameters have been changed.
- `resetRadioCardRegardless`: Forces the radio card to reset, even if no radio card parameters have been changed.

System Scale

Specifies the current Access Point density in the Extended Service Set (ESS). This value must be saved across a system reset and/or a power cycle.

Secure Access

When this mode is set to enabled, the AP will only associate with stations that have the same network name as the AP. When this mode is set to disabled, a station with the network name of `ANY` is allowed to associate. This value must be saved across a system reset and/or a power cycle.

Multicast Tx Rate

This value specifies the Multicast data transmission rate of the AP. It is implemented when cards that operate faster than the 2Mbit 802.11 standard are inserted. Possible values are `fixed1Mbit`, `fixed2Mbit`, `fixedMediumRate`, and `fixedHighRate`. This value must be saved across a system reset and/or a power cycle.

Intra BSS Relay

When this mode is enabled, the AP entity within the PC Card will relay frames destined for stations associated with it and will NOT forward them to the bridging entity within the AP. When this mode is set to disabled, the AP entity within the PC Card will not relay frames from wireless client(s) to station(s) associated with it. Instead, it will forward frames to the bridging entity within the AP. This value must be saved across a system reset and/or a power cycle.

Station Name

The wireless station name sent out as part of the beacon messages. Valid only when a DS card is inserted in the Access Point.

Remote RTS Threshold

Indicates the number of octets in an MPDU, below which an RTS/CTS handshake shall not be performed. The default value is `2347`.

Medium Density Distribution

Whether or not to distribute medium density values to the clients.

Load Balancing

Whether or not the card will perform load balancing.

Microwave Oven Robustness

Enables or disables the microwave oven robustness algorithm designed to reduce the effects of microwave oven interference.

NetSight Element Manager

> **Note:** From the Icon Subviews menu for the device icon, select **NetSight Element Manager**.

This menu selection launches the Enterasys NetSight Element Manager application if it is available. In order for SPECTRUM to find Netsight, you must set the `NETSIGHTPATH` environmental variable equal to the path to the NetSight Element Manager application.

When setting the `NETSIGHTPATH` environmental variable, be sure to use the path to the location of the Element Manager executable, not the path to the location of the installation.

For example, if the NetSight Element Manager was installed in a Windows environment in the `Program Files\Enterasys Networks\NetSight Element Manager` directory, the path to the executable would be:

```
C:\Program Files\Enterasys Networks\NetSight Element Manager\Bin
```

> **Note:** For information on how to set an environmental variable, refer to the documentation for your operating system.

Once you have set the `NETSIGHTPATH` environmental variable, you must restart the SpectroGRAPH and the SPECTRUM Control Panel (if you are using it to launch the SpectroGRAPH) in order for the NetSight Element Manager menu option to become available.

RoamAbout R2 Web Administration

The Enterasys RoamAbout R2 web-based administration application can be launched from the RoamAbout device model.

To launch the web management view, right click on the device icon of the RoamAbout R2 device model in the Topology view and choose **R2 Wireless Access Platform**.

Note: By default, the Web Admin URL is `http://<0x1027f>` (the `Network_Address` attribute). You can use the Global Attribute Editor in Search Manager to change this. See the Global Attribute Editor section of the *Search Manager User Guide (2383)* for more information.

RoamAbout R2 VLAN Fault Isolation

The RoamAbout R2 device model participates in VLAN Fault Isolation and Overlay. See the *VLAN Management User Guide (3543)* for more information.

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